



SEQUENCE LISTING

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LI, Guofu

<120> ZINC FINGER PROTEINS FOR DNA BINDING AND GENE
REGULATION IN PLANTS

<130> 8325-0026 / S26-US1

<140> 10/055,713
<141> 2002-01-22

<150> 60/263,445
<151> 2001-01-22

<150> 60/290,716
<151> 2001-05-11

<160> 105

<170> PatentIn Ver. 2.0

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1

5

10

15

Xaa Xaa His Xaa Xaa Xaa Xaa Xaa His
 20 25

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<400> 2

ggcgtagac

9

<210> 3

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<400> 3

ggcgacgta

9

<210> 4

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2 linked ZFPs

<220>

<221> misc_feature

<222> (1)..(23)

<223> n = a, c, g or t

<220>

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<222> (1)..(3)

<223> 3rd finger of a 2nd ZFP

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<222> (4)..(6)

<223> 2nd finger of a 2nd ZFP

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<223> 1st finger of a 2nd ZFP

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<223> n may be present or absent

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<223> 3rd finger of a 1st ZFP

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23

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Thr Gly Glu Lys Pro
1 5

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Gly Gly Gly Gly Ser
1 5

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Gly Gly Arg Arg Gly Gly Gly Ser

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5

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Leu Arg Gln Arg Asp Gly Glu Arg Pro

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5

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Leu Arg Gln Lys Asp Gly Gly Gly Ser Glu Arg Pro

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Leu Arg Gln Lys Asp Gly Gly Gly Ser Gly Gly Gly Ser Glu Arg Pro

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5

10

15

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recognition helix

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<400> 11

Tyr Lys Cys Pro Glu Cys Gly Lys Ser Phe Ser Xaa Xaa Xaa Xaa Xaa

1 5 10 15

Xaa Xaa His Gln Arg Thr His Thr Gly Glu Lys Pro
20 25

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Lys Lys Lys Ser Lys Gly His Glu Cys Pro Ile Cys Phe Arg Val Phe
1 5 10 15

Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa His Lys Arg Ser His Thr Gly Glu
20 25 30

Lys Pro

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1 5 10 15

Xaa Xaa His Lys Arg Leu His Thr Gly Glu Lys Pro
20 25

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 1 5 10 15

 Xaa Xaa His Val Arg Ile His
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 Gln Asn Lys Lys
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 Thr Gly Glu Xaa Xaa
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 1 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa His Lys Arg Ser His Thr Gly Glu Lys Pro
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 Tyr Lys Cys Thr Val Cys Gly Lys Ser Phe Ser Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa His Lys Arg Leu His Thr Gly Glu Lys Pro
 20 25

<210> 19
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 1 5 10 15
 Xaa Xaa His Val Arg Ile His Gln Asn Lys Lys
 20 25

<210> 20

<211> 60
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 ctg 63

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<210> 26
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<223> Description of Artificial Sequence: target sequence

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gagggggcg 9

<210> 27
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<223> Description of Artificial Sequence: F1 recognition helix
sequence

<400> 27
Arg Ser Asp Glu Leu Thr Arg
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Arg Ser Asp His Leu Thr Arg
1 5

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sequence

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Arg Ser Asp Asn Leu Thr Arg
1 5

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cttcttggtc tgggtgatac gcacgtgacg ggtcaagttg tcagaacgac cgaacttacg 60
ctg 63

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 1 5

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 Asp Arg Ser Asn Leu Thr Arg
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<210> 38
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Arg Ser Asp Ala Leu Thr Arg
1 5

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cgggatgggt 10

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Arg Ser Asp His Leu Ala Arg
1 5

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Thr Ser Gly Asn Leu Val Arg
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Arg Ser Asp His Leu Arg Glu
1 5

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tggtgggtgt

10

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Arg Ser Asp Ala Leu Thr Arg

1

5

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Arg Ser Asp His Leu Thr Thr

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5

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Arg Ser Asp His Leu Thr Thr

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Gln Ser Ser Asn Leu Ala Arg
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gaggaagggg 10

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Arg Ser Asp His Leu Ala Arg
1 5

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Gln Ser Gly Asn Leu Ala Arg
1 5

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1 5

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tgggtagtc 9

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Glu Arg Gly Thr Leu Ala Arg
1 5

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Gln Ser Gly Ser Leu Thr Arg
1 5

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Arg Ser Asp His Leu Thr Thr
1 5

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ggggaaaggg 10

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Arg Ser Asp His Leu Thr Gln
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Gln Ser Gly Asn Leu Ala Arg
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Arg Ser Asp His Leu Ser Arg
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gaagagggtg 10

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Gln Ser Ser His Leu Ala Arg
1 5

<210> 65
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Arg Ser Asp Asn Leu Ala Arg
1 5

<210> 66
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Gln Ser Gly Asn Leu Ala Arg
1 5

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gaggaggatg 10

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Gln Ser Ser Asn Leu Gln Arg
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<210> 69
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Arg Ser Asp Asn Ala Leu Arg
1 5

<210> 70
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Arg Ser Asp Asn Leu Gln Arg
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<210> 71
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gaggaggagg

10

<210> 72

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Arg Ser Asp Asn Ala Leu Arg

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5

<210> 73

<211> 7

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Arg Ser Asp Asn Leu Ala Arg

1

5

<210> 74

<211> 7

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Arg Ser Asp Asn Leu Thr Arg

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5

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Gln Ser Ser Asp Leu Arg Arg
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<210> 78
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<210> 79
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<210> 81
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<210> 82
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<400> 82
Arg Ser Asp His Leu Thr Thr
1 5

<210> 83
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<400> 83
gaggaagct 9

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Gln Ser Ser Asp Leu Arg Arg
1 5

<210> 85
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<210> 86

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Arg Ser Asp Asn Leu Thr Arg
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<210> 87

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gcttggtggct 10

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Asp Arg Ser His Leu Thr Arg
1 5

<210> 89

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<223> Description of Artificial Sequence: ZFP 14 F2 recognition helix

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Thr Ser Gly His Leu Thr Thr
1 5

<210> 90
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<223> Description of Artificial Sequence: ZFP 14 F3 recognition helix

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<210> 91
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gtagtggatg 10

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Gln Ser Ser Asn Leu Ala Arg
1 5

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<400> 93
Arg Ser Asp Ala Leu Ser Arg
1 5

<210> 94
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<400> 94
Gln Ser Gly Ser Leu Thr Arg
1 5

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<400> 95
gtgtgggatt 10

<210> 96
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Gln Ser Ser Asn Leu Ala Arg
1 5

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<223> Description of Artificial Sequence: ZFP 16 F2 recognition helix

<400> 97
Arg Ser Asp His Leu Thr Thr
1 5

<210> 98
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: ZFP 16 F3 recognition helix

<400> 98
Arg Ser Asp Ala Leu Thr Arg
1 5

<210> 99
<211> 18
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: GMT forward primer

<400> 99
aatgatctcg cggctgct 18

<210> 100
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: GMT reverse primer

<400> 100
gaatggctga tccaacgcat 20

<210> 101
<211> 29
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: GMT probe

<400> 101
tcactcgctc ataaggcttc cttccaagt 29

<210> 102
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 18S forward primer

<400> 102
tgcaacaaac cccgacttat g 21

<210> 103
<211> 19
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 18S reverse primer

<400> 103
cccgcgtcga ccttttatc 19

<210> 104
<211> 16
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 18S probe

<400> 104
aataaatgcg tccctt

16

<210> 105
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: recognition sequence

<400> 105
Gln Ala Leu Gly Gly His
1 5